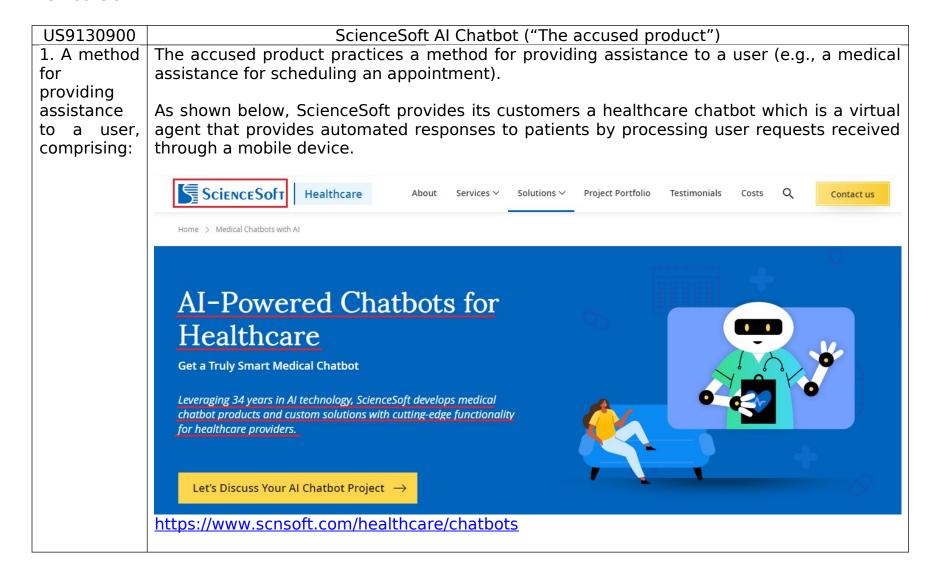
Exhibit 2

Method Claim: 1



Medical Chatbots with AI in Brief

Perfectly imitating human interaction, <u>Al-powered medical chatbots can improve the quality and</u> availability of care and <u>patient engagement</u>, drive healthcare and administrative staff productivity, facilitate disease self-management. Al chatbots often complement patient-centered medical software (e.g., <u>telemedicine apps</u>, <u>patient portals</u>) or solutions for physicians and nurses (e.g., <u>EHR</u>, <u>hospital apps</u>).

https://www.scnsoft.com/healthcare/chatbots

Symptoms checking

A chatbot checks patients'
symptoms to identify if medical
help is required. It also can
connect a patient with a
physician for a consultation
and help medical staff monitor
patients' state.

Value: Improved access to medical care, less misinformation.

Successful example: a <u>virtual</u> <u>assistant</u> using speech, text, images, and video for patient assessment.

Patient support in post-operative care and chronic disease management

A chatbot guides patients through recovery and helps them overcome the challenges of chronic diseases.

Value: 24/7 access to care support, handling non-standard questions due to the access to personal care plans and treatment protocols.

Successful example: a <u>chatbot</u> app for oncology patients.

Virtual assistants for medical staff

A chatbot can be a part of a doctor/nurse app helping the staff with treatment planning, adding patient records, calculating medication dosage, verifying prescribed drugs, and

retrieving all the necessary

patient information fast.

Value: Increased staff efficiency, improved treatment accuracy.

General patient assistance

Al chatbots provide basic informational support to patients (e.g., offers information on visiting hours, address) and performs simple tasks like appointment scheduling, handling of prescription renewal requests.

Value: 24/7 assistance availability; decreased load on the call center; patient convenience.



Human-like response generation

Using Al to imitate an actual conversation, medical chatbots will send personalized messages to users.



Patient monitoring

When aimed at disease management, Al chatbots can help monitor and assess symptoms and vitals (e.g., if connected to a wearable medical device or a smartwatch).



Notifications for patients and medical staff

A chatbot can <u>send reminders</u> like taking medication or measuring vitals to patients. In case of an emergency, a chatbot can send an alert to a doctor via an integrated physician app or EHR.

https://www.scnsoft.com/healthcare/chatbots



Patient data collection

To accelerate care delivery, a chatbot can collect required patient data (e.g., address, symptoms, insurance details) and keep this information in EHR.



Appointment scheduling

A chatbot helps select a doctor and choose a suitable date and time slot. After confirmation, the visit is scheduled in EHR.

https://www.scnsoft.com/healthcare/chatbots



Prescription refilling or renewal

Patients <u>can request prescription refilling/renewal</u>
<u>via a medical chatbot</u> and receive electronic
prescriptions (when verified by a physician).



Appointment management

- 24/7 booking, rescheduling, and canceling of online or offline consultations.
- In-app appointment calendar synchronized with patients' digital calendars.
- Dynamic search filters for choosing the best provider (based on a doctor's experience, rating, fees, a patient's insurance plan, etc.).
- Urgent appointment scheduling.
- Appointment configurations and availability settings based on a doctor's schedule.
- Booking notes for patients to add relevant details about their medical condition or the purpose of their visit.
- Pre- and post-appointment instructions.
- A virtual waiting room.
- Chatbots to assist patients with scheduling.



Reminders and notifications

- Upcoming appointment reminders.
- Manual or automated reminders to visit a specialist (for patients with chronic conditions or in a high-risk group).
- Notifications of appointment changes.
- Rescheduling suggestions to patients in case of a canceled appointment.



https://www.scnsoft.com/healthcare/mobile/doctor-appointment-apps

receiving a user request for assistance from a

The accused product practices receiving a user request for assistance (e.g., a request for scheduling an appointment) from a mobile device (e.g., a smartphone, etc.).

As shown below, ScienceSoft provides its customers a healthcare chatbot which is a virtual a agent that provides automated responses to patients by processing user requests received

mobile device;

through a mobile device. It receives user requests in the form of text.

Architecture

The natural language processing module recognizes the essence of a person's audio or text message (symptoms description, etc.) and transforms it into a structured request. Then, **AI chatbot** can:

- 1. Trigger the data retrieval (e.g., potential diagnoses, patient health records) from a **knowledge base** or an **integrated app** (e.g., <u>EHR</u>, CRM, HealthKit, Google Health).
- 2. Authorize the requested operation in the **integrated app** (e.g., schedule an appointment).
- 3. Turn to the **recommendation engine** to run ML algorithms (e.g., for personalized treatment adjustments).

Therapy delivery

Often used for mental health and neurology, therapy chatbots offer support in treating disease symptoms (e.g., alleviating Tourette tics, coping with anxiety, dementia).

Value: Better access to care, addressing the shortage of medical professionals, overcoming social stigma.

Successful example: a <u>chatbot</u> offering cognitive-behavioral therapy.

General patient assistance

Al chatbots provide basic informational support to patients (e.g., offers information on visiting hours, address) and performs simple tasks like appointment scheduling, handling of prescription renewal requests.

Value: 24/7 assistance availability; decreased load on the call center; patient convenience.

Patient survey before/after the appointment

A friendly Al chatbot that helps collect necessary patient data (e.g., vitals, medical images, symptoms, allergies, chronic diseases) and post-visit feedback.

Value: routine tasks automation.



Appointment scheduling

A chatbot helps select a doctor and choose a suitable date and time slot. After confirmation, the visit is scheduled in EHR.

https://www.scnsoft.com/healthcare/chatbots



Prescription refilling or renewal

Patients can request prescription refilling/renewal via a medical chatbot and receive electronic prescriptions (when verified by a physician).



Appointment management

- 24/7 booking, rescheduling, and canceling of online or offline consultations.
- In-app appointment calendar synchronized with patients' digital calendars.
- Dynamic search filters for choosing the best provider (based on a doctor's experience, rating, fees, a patient's insurance plan, etc.).
- Urgent appointment scheduling.
- Appointment configurations and availability settings based on a doctor's schedule.
- Booking notes for patients to add relevant details about their medical condition or the purpose of their visit.
- Pre- and post-appointment instructions.
- A virtual waiting room.
- Chatbots to assist patients with scheduling.



Reminders and notifications

- Upcoming appointment reminders.
- Manual or automated reminders to visit a specialist (for patients with chronic conditions or in a high-risk group).
- Notifications of appointment changes.
- Rescheduling suggestions to patients in case of a canceled appointment.



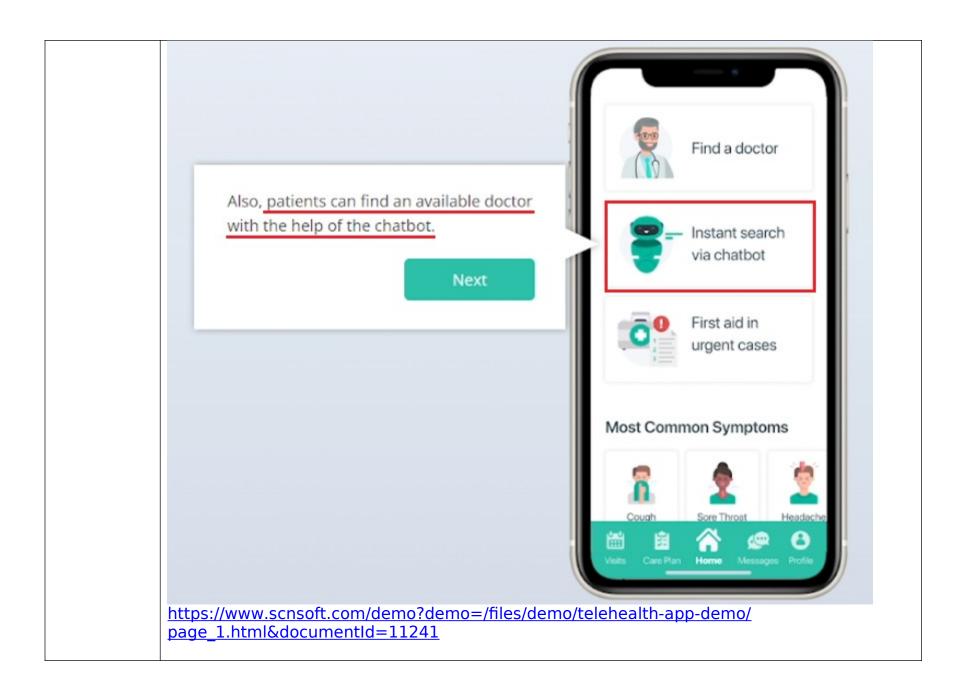
https://www.scnsoft.com/healthcare/mobile/doctor-appointment-apps

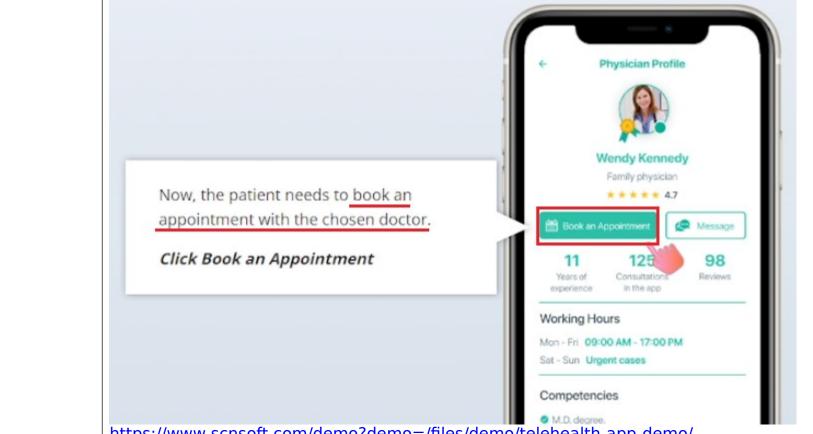
Patient-Centered Care with a Telehealth App

A telehealth app enables patients to:

- Keep track of personal health records: diagnoses, allergies, vital signs, immunizations, lab tests, medications, etc.
- <u>Find a doctor</u> based on a patient's symptoms and after viewing the doctor's competencies, education, reviews, and availability. Book an appointment with the doctor online.
- Get a consultation via video chat and access the recorded video later.
- View a personal care plan and track medication doses, as well as sign up for relevant tests online.

https://www.scnsoft.com/healthcare/telemedicine-apps/demo





https://www.scnsoft.com/demo?demo=/files/demo/telehealth-app-demo/ page 1.html&documentId=11241

determining semantics request and identifying domain.

The accused product practices determining semantics of the user request (e.g., a request for scheduling an appointment) and identifying at least one domain (e.g., checking of the user symptoms, booking an appointment, prescription refill etc.), at least one task (e.g., scheduling an appointment, rescheduling, etc.), and at least one parameter (e.g., a time slot, etc.) for the user request (e.g., a request for scheduling an appointment) by parsing the at least one user request to identify representations of meaning (e.g., identify intent of the user request) at or interpretation of the user request along with location (e.g., a location of the patient) and

least one least parameter request user request identify representati ons interpretatio n of the user request along with location and user personal information captured by the mobile device including telephone, texting, and user activity;

least one user personal information captured by the mobile device (e.g., a smartphone, etc.) including task, and at least one patient history, etc.).

for the user As shown below, ScienceSoft uses Natural Language Processing (NLP) to parse and request by determine the semantics of the user request received from the patient and deduce the parsing the meaningful interpretations of the request.

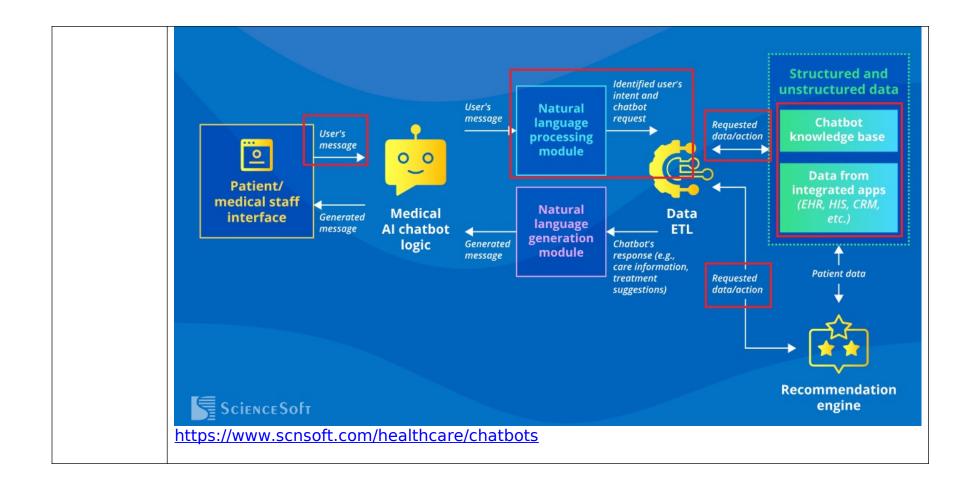
to For example, a user request for booking an appointment, is parsed to interpret the intent of the user and identify a task of scheduling an appointment.

ons of As shown below, ScienceSoft also collects information about the patient and their previous meaning or medical history. The chatbots provides responses to the customer request based on the interpretatio user activity.

Architecture

<u>The natural language processing module recognizes</u> the essence of a person's audio or text message (symptoms description, etc.) and transforms it into a structured request. Then, **AI chatbot** can:

- 1. <u>Trigger the data retrieval (e.g., potential diagnoses, patient health records) from a **knowledge base** or an **integrated app** (e.g., <u>EHR</u>, CRM, HealthKit, Google Health).</u>
- 2. Authorize the requested operation in the integrated app (e.g., schedule an appointment).
- 3. <u>Turn to the **recommendation engine** to run ML algorithms (e.g., for personalized treatment adjustments)</u>.



Virtual assistants for medical staff

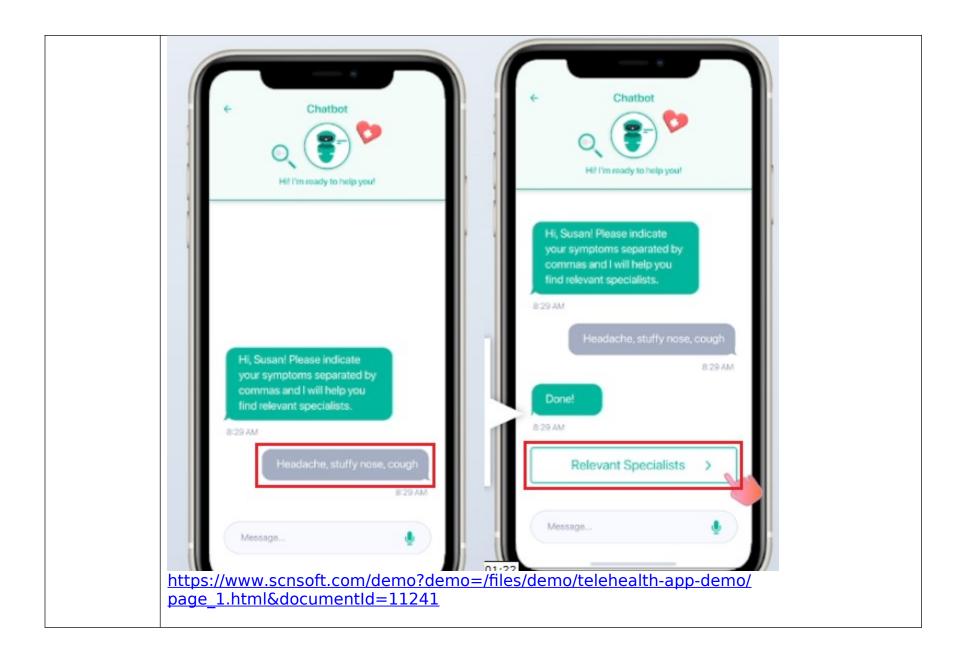
A chatbot can be a part of a doctor/nurse app helping the staff with treatment planning, adding patient records, calculating medication dosage, verifying prescribed drugs, and retrieving all the necessary patient information fast.

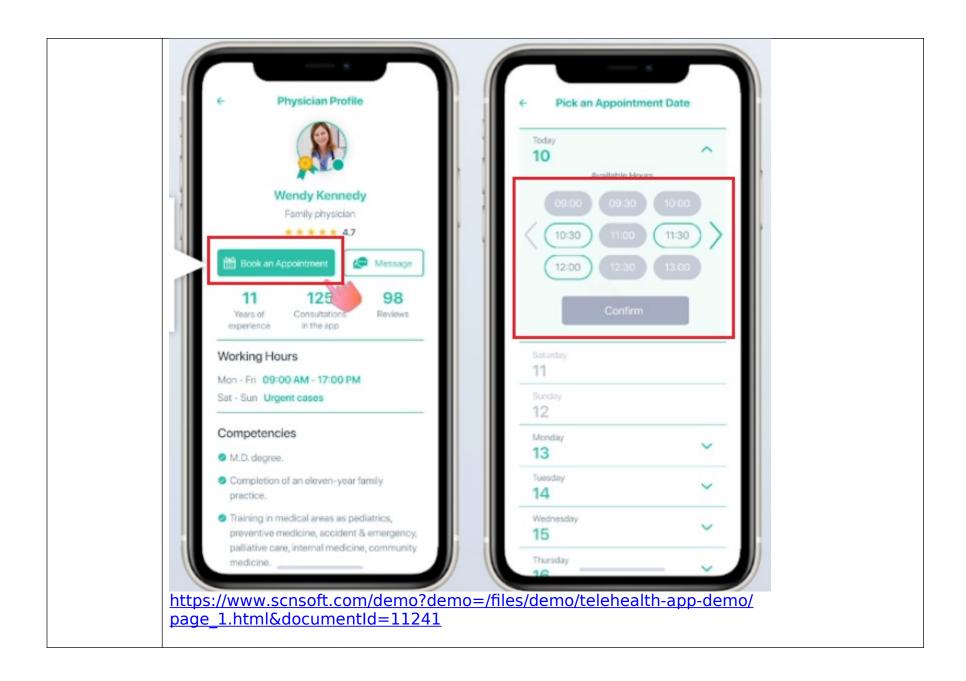
Value: Increased staff efficiency, improved treatment accuracy.



Analytics of <u>patient records</u> and <u>health data</u>

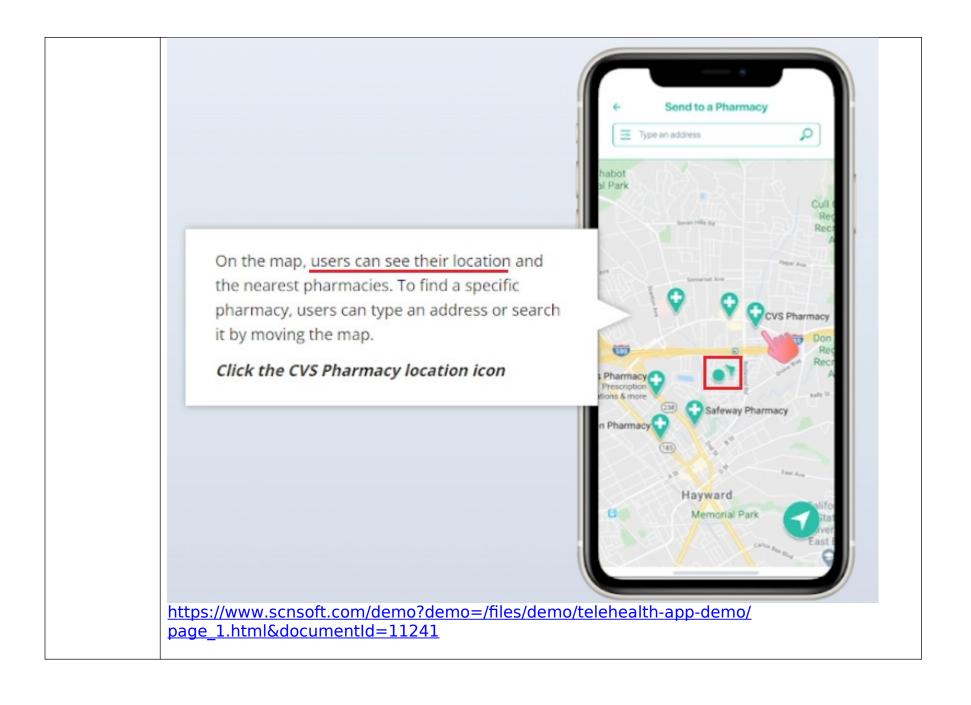
Backed by sophisticated data analytics, Al chatbots can become a <u>SaMD tool</u> for treatment planning and disease management. A chatbot can help physicians ensure the medications' compatibility, plan the dosage, consider medication alternatives, suggest care adjustments, etc.





- Voice assistance for mental health specialists to log patient data fast.
- Al chatbot for physicians and nurses
- Handwriting and image recognition of therapists' notes for records creation automation.
- Knowledge base for information on mental health disorders, medications intake schemes, drug interactions, mental disorder treatment protocols, etc.
- Check lists for mental health professionals to help assess and diagnose a patient.
- Notifications to patients on upcoming appointments with mental health specialists via SMS, e-mail, patient application.

https://www.scnsoft.com/healthcare/ehr/mental-health



accessing one or more semantic web services, each service accessed through an application program interface (API) to retrieve data matching the at least one domain. at least one task, and at least one parameter;

The accused product practices accessing one or more semantic web services, each service accessed through an application program interface (API) (e.g., EHR integration API, etc.) to retrieve data matching (e.g., matching of patients with providers) the at least one domain (e.g., checking symptoms, booking an appointment, prescription refill etc.), at least one task (e.g., scheduling an appointment, rescheduling, etc.), and at least one parameter (e.g., a time slot, etc.).

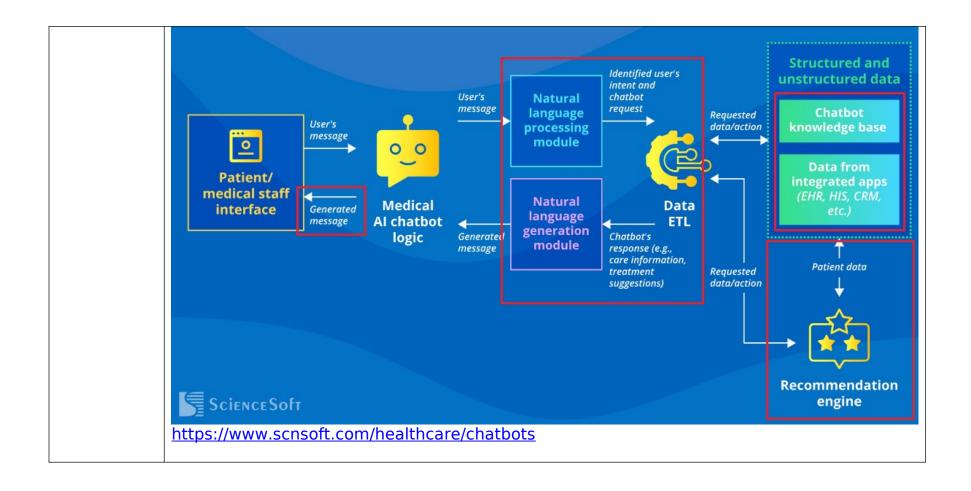
As shown below, ScienceSoft accesses a webservice ("semantic web services") through EHR integration API to collect the patient data for providing response to the user's command. For example, when the user request is for scheduling an appointment, ScienceSoft chatbot access the webservices through EHR integration API and automatically matches patients with providers based on their diagnosis and treatment type.

- Selecting an appropriate integration approach:
 - Common data storage collects data from the EHR database and databases of the integrated applications.
 - API integration using APIs for communication between the EHR system and the connected apps.
 - Mediated integration using Enterprise Service Bus (ESB) or other third-party integration tools to mediate communication between an EHR/EMR and other healthcare applications.

 Planning custom API development to enable the integration of the healthcare software product with the target off-the-shelf EHR systems.

Note: Other integration approaches are not viable for a medical software product as they require close communication between the databases of a specific EHR and the target software product. <u>Using an API to facilitate integration is the only available option for the healthcare software products.</u>

https://www.scnsoft.com/healthcare/ehr/integration





Appointment scheduling

A chatbot helps select a doctor and choose a suitable date and time slot. After confirmation, the visit is scheduled in EHR.





Prescription refilling or renewal

Patients can request prescription refilling/renewal via a medical chatbot and receive electronic prescriptions (when verified by a physician).



Appointment management

- 24/7 booking, rescheduling, and canceling of online or offline consultations.
- In-app appointment calendar synchronized with patients' digital calendars.
- Dynamic search filters for choosing the best provider (based on a doctor's experience, rating, fees, a patient's insurance plan, etc.).
- Urgent appointment scheduling.
- Appointment configurations and availability settings based on a doctor's schedule.
- Booking notes for patients to add relevant details about their medical condition or the purpose of their visit.
- Pre- and post-appointment instructions.
- A virtual waiting room.
- Chatbots to assist patients with scheduling.



Reminders and notifications

- Upcoming <u>appointment reminders.</u>
- Manual or automated reminders to visit a specialist (for patients with chronic conditions or in a high-risk group).
- Notifications of appointment changes.
- Rescheduling suggestions to patients in case of a canceled appointment.



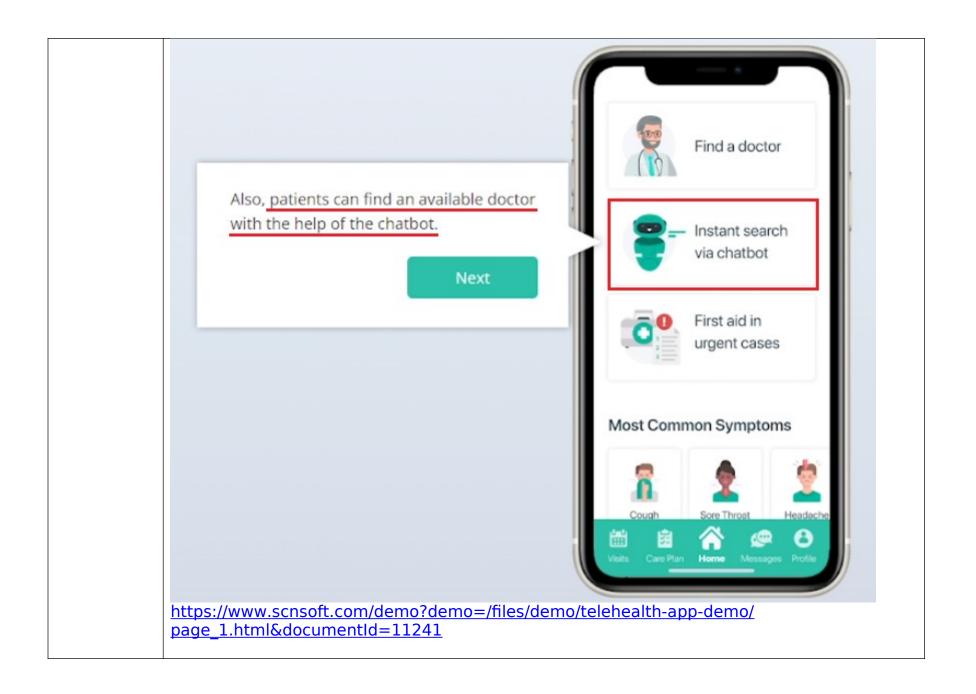
https://www.scnsoft.com/healthcare/mobile/doctor-appointment-apps

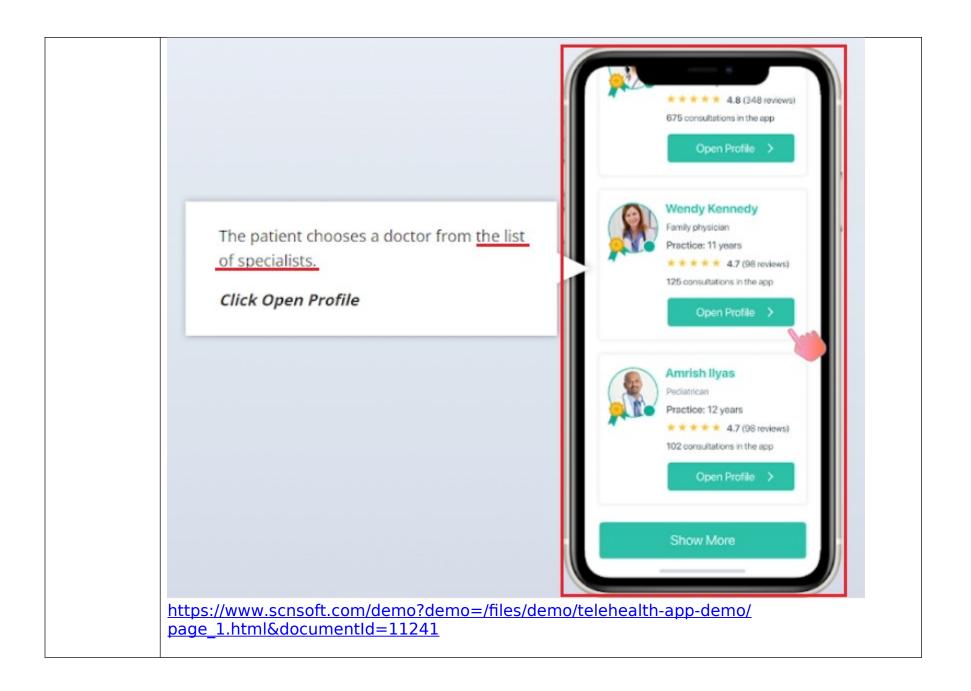
Patient-Centered Care with a Telehealth App

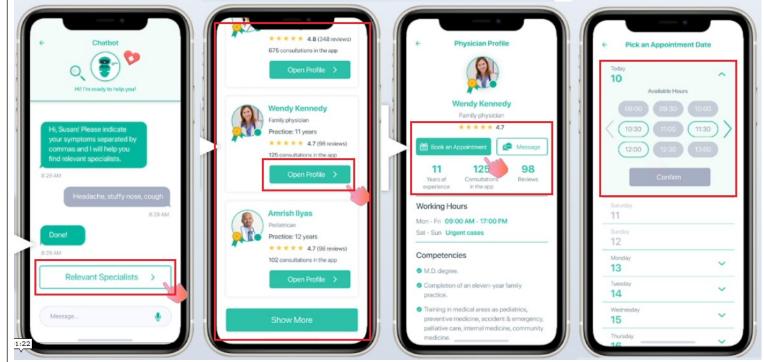
A telehealth app enables patients to:

- Keep track of personal health records: diagnoses, allergies, vital signs, immunizations, lab tests, medications, etc.
- <u>Find a doctor</u> based on a patient's symptoms and after viewing the doctor's competencies, education, reviews, and availability. Book an appointment with the doctor online.
- Get a consultation via video chat and access the recorded video later.
- View a personal care plan and track medication doses, as well as sign up for relevant tests online.

https://www.scnsoft.com/healthcare/telemedicine-apps/demo







https://www.scnsoft.com/demo?demo=/files/demo/telehealth-app-demo/page_1.html&documentId=11241

identifying, generating, or providing personalize d recommend ations for activities, products, services,

The accused product practices identifying, generating, or providing personalized recommendations for activities, products, services (e.g., personalized responses for a user's query).

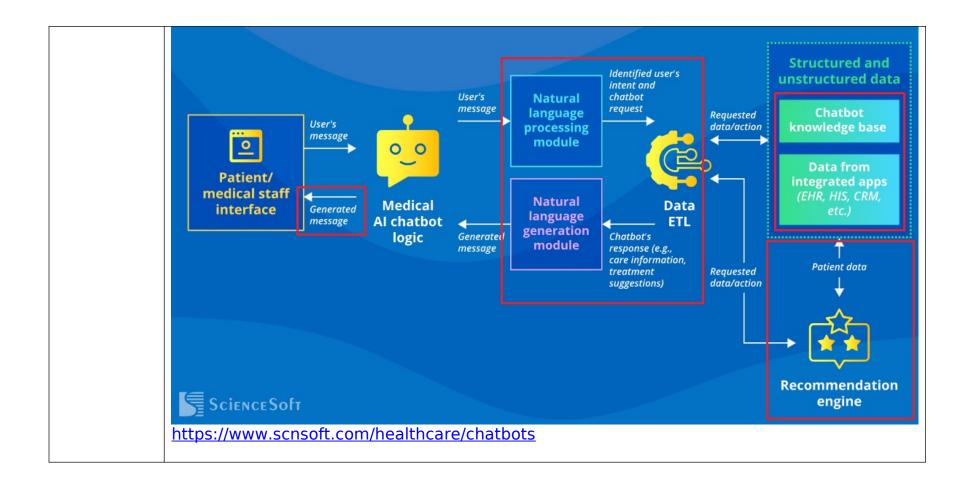
As shown below, Sciencesoft healthcare chatbot records details of the patient by accessing their past medical history reports and personal details such as location, etc. Thus, when a user request for finding a pharmacy is received by the chatbot, it provides the patient with a nearby pharmacy close to the patient's location. Similarly, a user can select from a number of specialists based on the symptoms entered by the user.

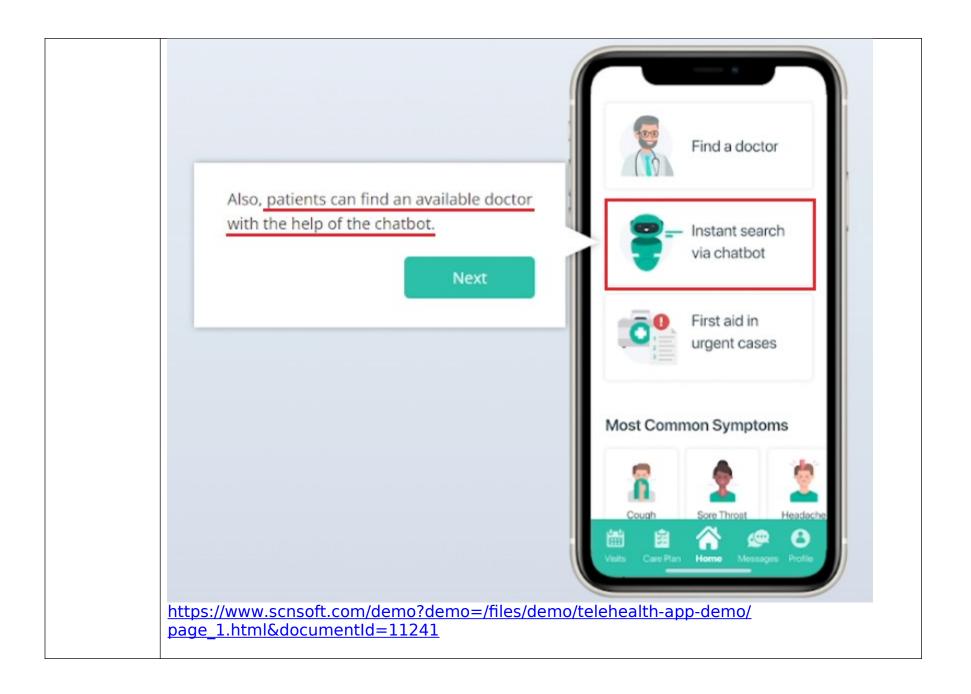
Patient-Centered Care with a Telehealth App

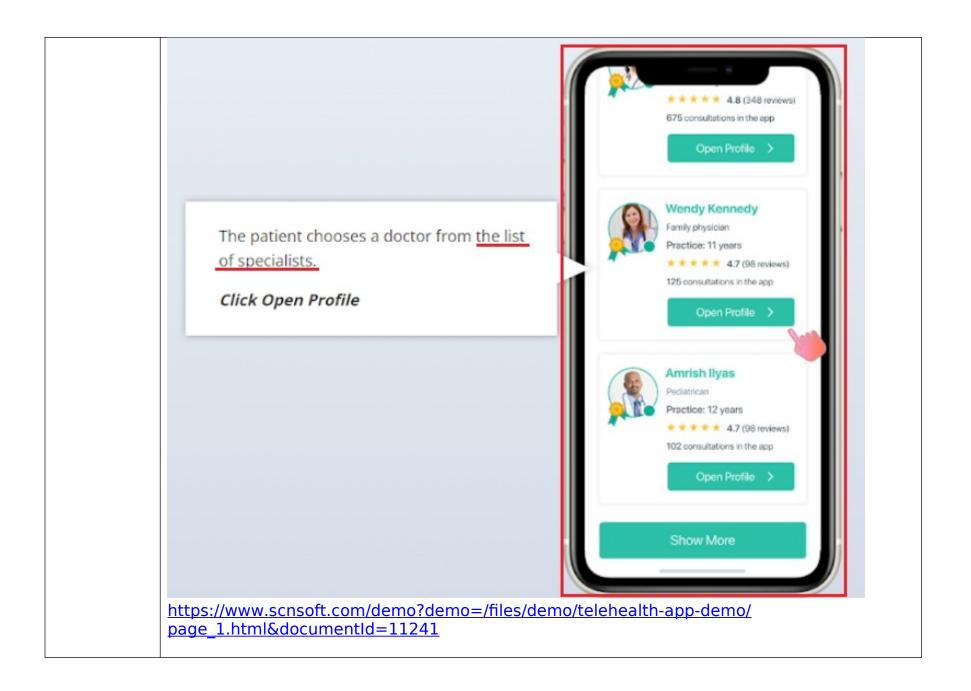
A telehealth app enables patients to:

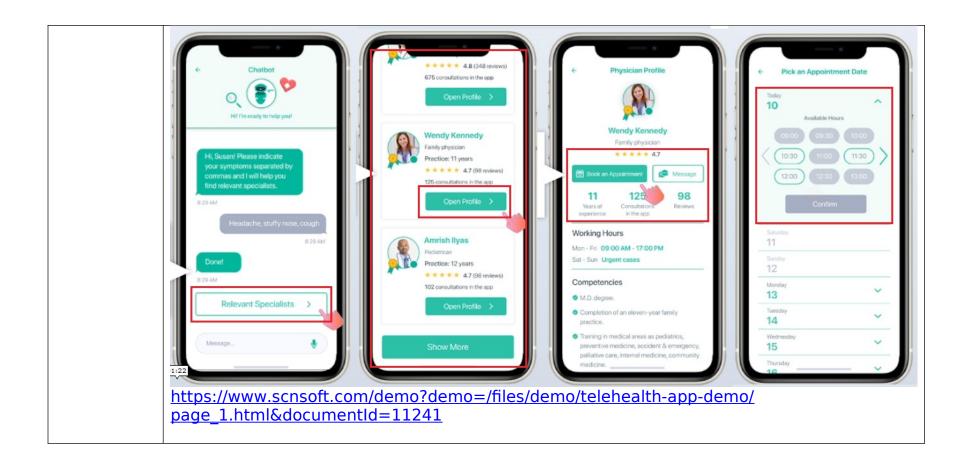
- Keep track of personal health records: diagnoses, allergies, vital signs, immunizations, lab tests, medications, etc.
- <u>Find a doctor</u> based on a patient's symptoms and after viewing the doctor's competencies, education, reviews, and availability. Book an appointment with the doctor online.
- Get a consultation via video chat and access the recorded video later.
- View a personal care plan and track medication doses, as well as sign up for relevant tests online.

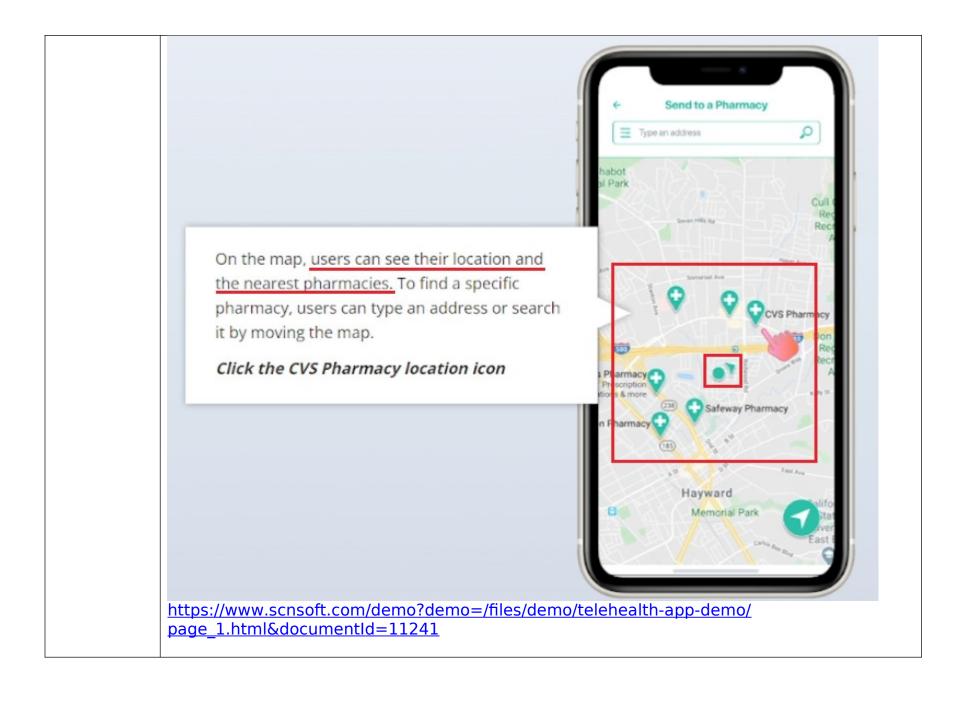
https://www.scnsoft.com/healthcare/telemedicine-apps/demo











presenting possible responses with semantic web calling services through the API extracting one or more suggestions from the semantic web services through the API and confirming user responses by accessing a text messaging API or a phonebook API:

presenting possible responses (e.g., available time slots, etc.) to the user (e.g., a patient) by interact with the semantic web services by calling the services through the API (e.g., an EHR integration API, etc.) and extracting one or more options or suggestions from the semantic web services through the API (e.g., an EHR integration API, etc.) and confirming user responses by accessing a text messaging API (e.g., SMS) or a phonebook API.

web services by calling the services "As shown below, ScienceSoft accesses the web service ("interact with semantic web services") using EHR API to provide a response to the patient. The web service collects the relevant responses ("one or more options or suggestions") and provides them to the ScienceSoft chat bot to present them further to the patient.

API and extracting one or more options or suggestions are responsed by sending the patient confirms booking an appointment, and option to book a convenient time slot. Further, once the patient confirms booking a slot for an appointment, the healthcare chatbot confirms the user response by sending the patient a confirmation text message for a scheduled appointment.



Appointment scheduling

A chatbot helps select a doctor and choose a suitable date and time slot. After confirmation, the visit is scheduled in EHR.



https://www.scnsoft.com/healthcare/chatbots



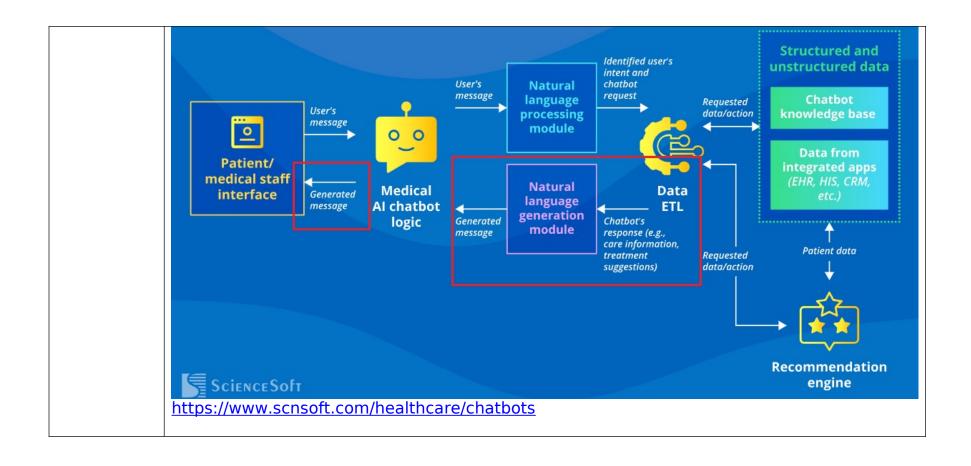
Prescription refilling or renewal

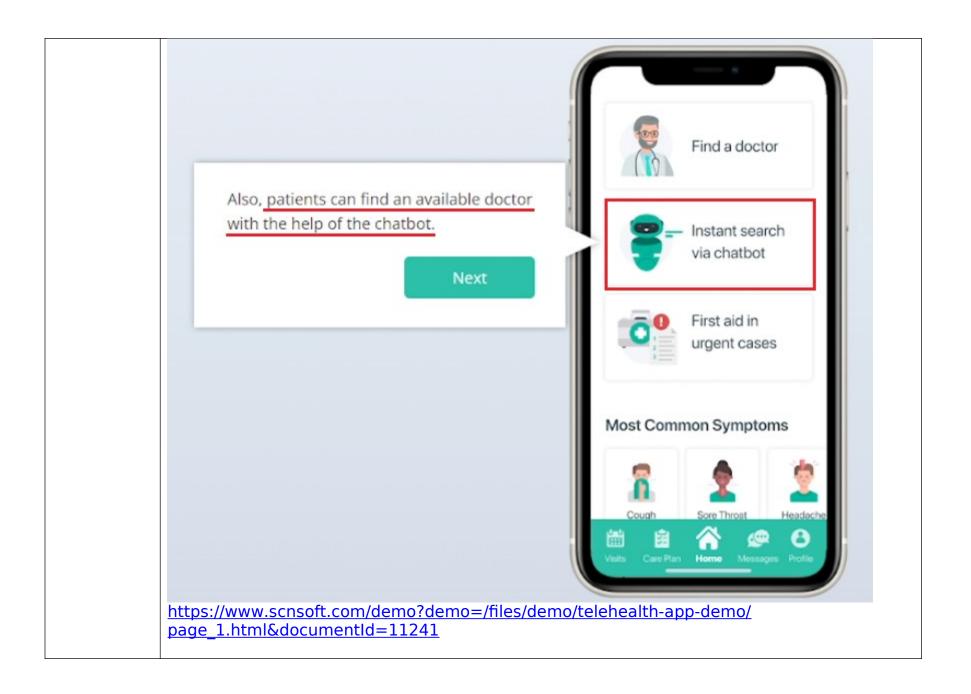
Patients can request prescription refilling/renewal via a medical chatbot and receive electronic prescriptions (when verified by a physician).

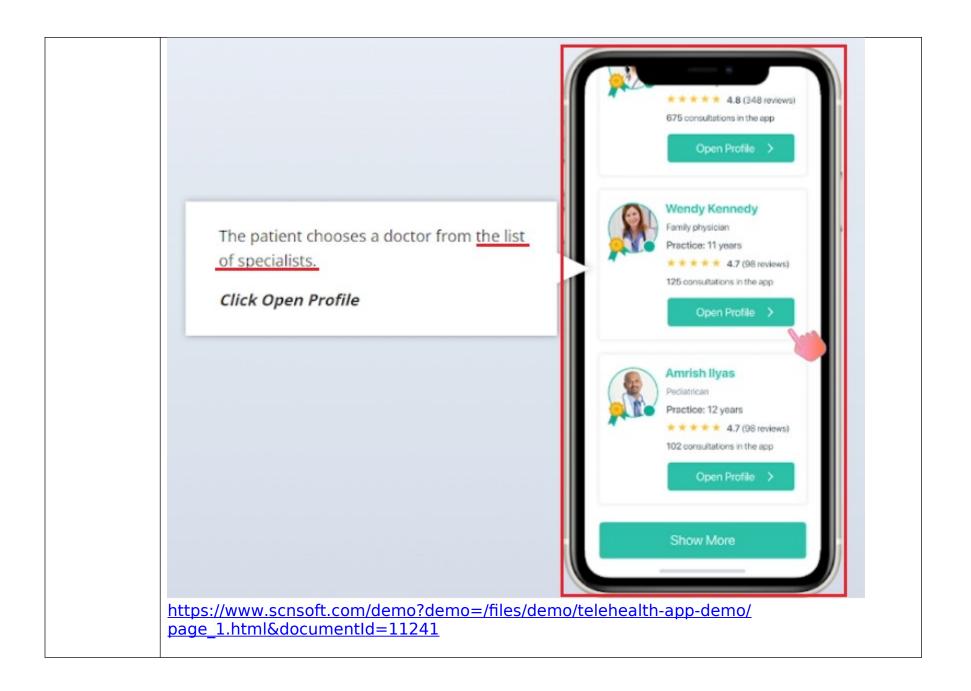
Architecture

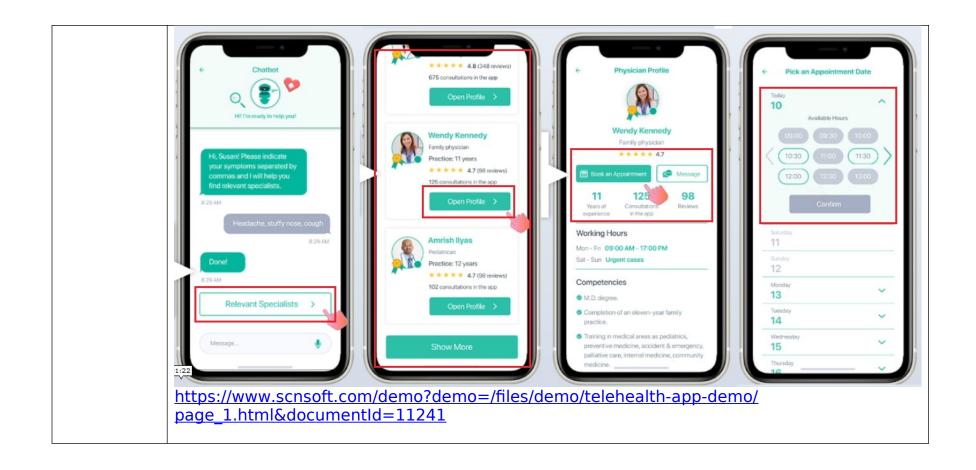
The natural language processing module recognizes the essence of a person's audio or text message (symptoms description, etc.) and transforms it into a structured request. Then, Al chatbot can:

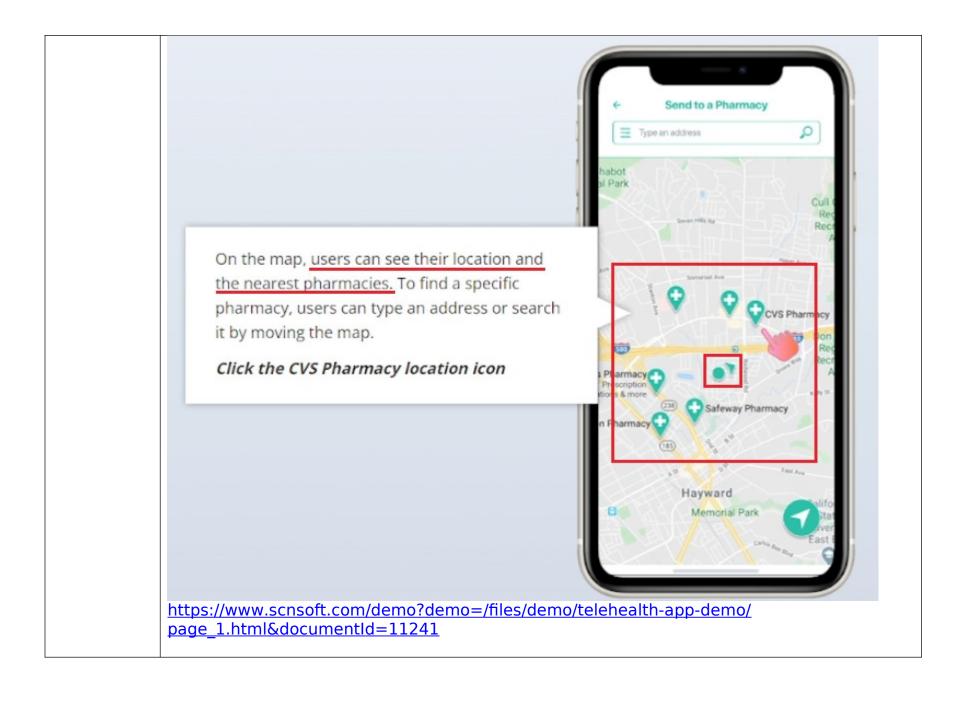
- 1. <u>Trigger the data retrieval (e.g., potential diagnoses, patient health records) from a **knowledge base** or an **integrated app** (e.g., <u>EHR</u>, CRM, HealthKit, Google Health).</u>
- 2. Authorize the requested operation in the **integrated app** (e.g., <u>schedule an appointment</u>).
- 3. <u>Turn to the **recommendation engine** to run ML algorithms (e.g., for personalized treatment adjustments)</u>.











- Voice assistance for mental health specialists to log patient data fast.
 Al chatbot for physicians and nurses
- Handwriting and image recognition of therapists' notes for records creation automation.
- Knowledge base for information on mental health disorders, medications intake schemes, drug interactions, mental disorder treatment protocols, etc.
- Check lists for mental health professionals to help assess and diagnose a patient.
- Notifications to patients on upcoming appointments with mental health specialists via SMS, e-mail, patient application.

https://www.scnsoft.com/healthcare/ehr/mental-health

determining at least one responsive answer; and

The accused product practices determining at least one responsive answer (e.g., available appointment slots, etc.).

As shown below, ScienceSoft chatbot determines a response such as available appointment slots, suitable dietary choices, etc. by identifying the intent of the user request.

Medical Chatbots with AI in Brief

Perfectly imitating human interaction, <u>Al-powered medical chatbots can improve the quality and</u> availability of care and <u>patient engagement</u>, drive healthcare and administrative staff productivity, facilitate disease self-management. Al chatbots often complement patient-centered medical software (e.g., <u>telemedicine apps</u>, <u>patient portals</u>) or solutions for physicians and nurses (e.g., <u>EHR</u>, <u>hospital apps</u>).

https://www.scnsoft.com/healthcare/chatbots

Symptoms checking

A chatbot checks patients'
symptoms to identify if medical
help is required. It also can
connect a patient with a
physician for a consultation
and help medical staff monitor
patients' state.

Value: Improved access to medical care, less misinformation.

Successful example: a <u>virtual</u> <u>assistant</u> using speech, text, images, and video for patient assessment.

Patient support in post-operative care and chronic disease management

A chatbot guides patients through recovery and helps them overcome the challenges of chronic diseases.

Value: 24/7 access to care support, handling non-standard questions due to the access to personal care plans and treatment protocols.

Successful example: a <u>chatbot</u> app for oncology patients.

Virtual assistants for medical staff

A chatbot can be a part of a doctor/nurse app helping the staff with treatment planning, adding patient records, calculating medication dosage,

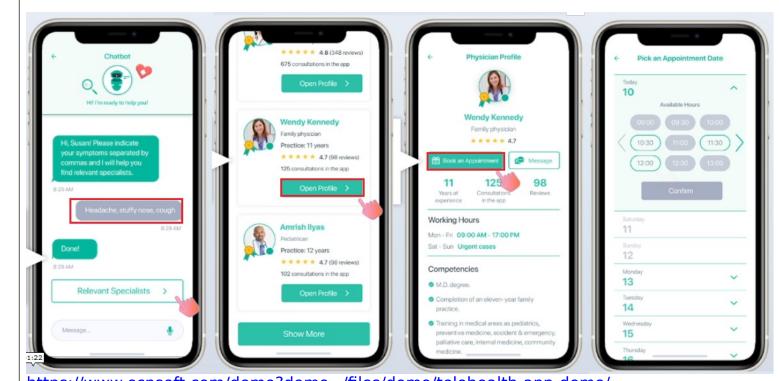
calculating medication dosage, verifying prescribed drugs, and retrieving all the necessary patient information fast.

Value: Increased staff efficiency, improved treatment accuracy.

General patient assistance

Al chatbots provide basic informational support to patients (e.g., offers information on visiting hours, address) and performs simple tasks like appointment scheduling, handling of prescription renewal requests.

Value: 24/7 assistance availability; decreased load on the call center; patient convenience.

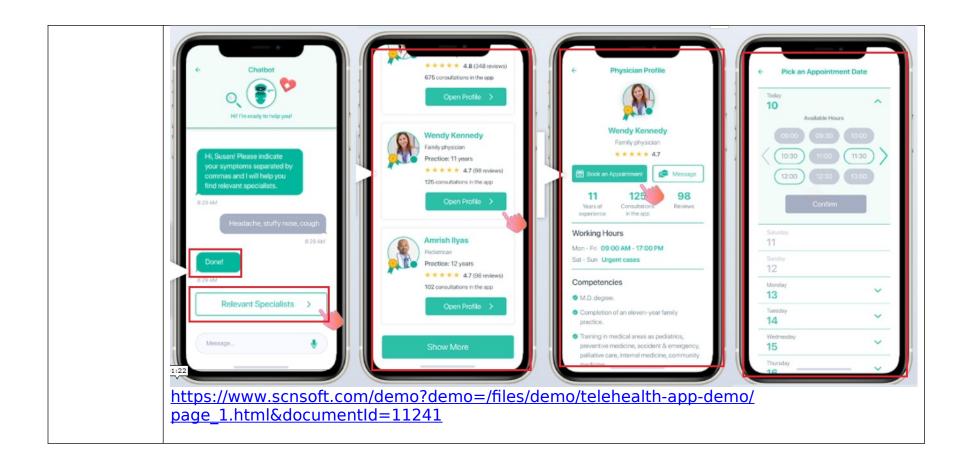


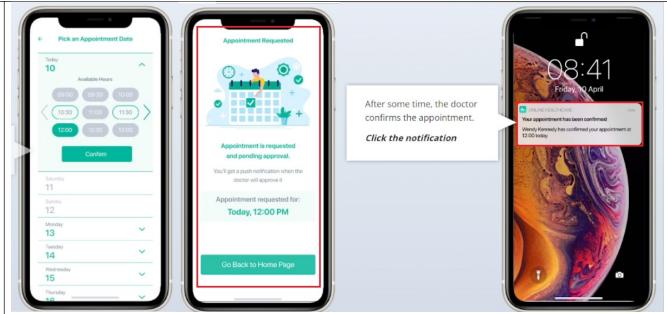
https://www.scnsoft.com/demo?demo=/files/demo/telehealth-app-demo/page 1.html&documentId=11241

responding to the user request.

The accused product practices responding to the user request (e.g., a confirmation text message for scheduled appointment).

As shown below, ScienceSoft chatbot provides confirmation of the scheduled appointment by sending a text message reminder to the patient.





https://www.scnsoft.com/demo?demo=/files/demo/telehealth-app-demo/page_1.html&documentId=11241

- Knowledge base for information on mental health disorders, medications intake schemes, drug interactions, mental disorder treatment protocols, etc.
- Check lists for mental health professionals to help assess and diagnose a patient.
- Notifications to patients on upcoming appointments with mental health specialists via SMS, e-mail, patient application.

https://www.scnsoft.com/healthcare/ehr/mental-health